WHAT IS CLAIMED IS:

		WHAT IS CLAIMED IS.
487	1	A process for sealing and insulating a fuel cell plate, the process comprising:
		providing a fuel cell plate having first and second surfaces;
	2	applying a coating precursor on at least the first surface of the fuel cell plate, the
	3	coating precursor adapted to polymerize in response to radiation or heat; and
	4	exposing the coating precursor on the fuel cell plate to radiation or heat to initiate
	5	\
	6	polymerization.
	1	2. The process of claim 1, wherein the coating precursor is applied by screen
	2	printing.
	1	The process of claim 1, wherein the coating precursor is exposed to ultraviolet
	2	radiation.
Ŧ	1	4. The process of claim 3, wherein the coating precursor is successively exposed
	2	to ultraviolet radiation of an least two different wavelengths.
	1	5. The process of claim 1, wherein the coating precursor is exposed to infrared
ū	2	radiation.
		6. The process of claim 1, wherein the coating precursor is adapted to polymerize
	1	\
,	2	in response to ultraviolet radiation.
	1	7. The process of claim 1 wherein the coating precursor is adapted to polymerize
	2	in response to electron beam radiation.
	1	8. The process of claim 1, wherein the coating precursor is adapted to polymerize
	2	in response to infrared radiation.
	1	9. The process of claim 1, wherein the coating precursor is exposed to radiation
	2	for about less than about 45 minutes.
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	1	10. The process of claim 1, wherein the coating precursor is exposed to radiation
	2	for about less than about one minute.

1	1	or is exposed to radiation
2	2 for about less than about 30 seconds.	
1	1 12. The process of claim 1, wherein the coating precurse	or is exposed to radiation
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2	2 for about less than about 13 seconds.	
1	1 13. The process of claim 1, wherein the coating precurs	or is exposed to radiation
2	2 for about less than about 5 seconds.	
1	1 14. The process of claim 1, wherein the coating precurs	or is an ultraviolet-curable
2	2 coating precursor.	
1	1 15. The process of claim 1, wherein the coating precurs	or is an electron beam-
2	2 curable coating precursor.	
		' ' C 11-1-
1	1 16. The process of claim 1, wherein the coating precurs	or is an infrared-curable
2	2 coating precursor.	
1	1 17. A process for sealing and insulating a fuel cell plate	e, the process comprising:
2	providing a fuel cell plate having first and second surfaces;	
3	applying a coating precursor on at least the first surface of	the fuel cell plate, the
4	4 coating precursor adapted to polymerize in response to ultraviolet	radiation; and
5	exposing the coating precursor on the fuel cell plate to ultra	aviolet radiation to initiate
6	6 polymerization, wherein the coating precursor includes an acrylate	d oligomer and a
7	7 photoinitiator.	
	1 18. The process of claim 17, wherein the coating precur	reor further includes a
1	_	1501 further includes a
2	2 mono-functional monomer for reducing viscosity.	
	The process of alaim 17 wherein the coating precu	rsor further includes a

- 1 19. The process of claim 17, wherein the coating precursor further includes a multi-functional monomer for increasing cross-link density.
- 1 20. The process of claim 17, wherein the coating precursor further includes a 2 adhesion promoter.

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1 2	P 21. release agent.	The process of claim 17, wherein the coating precursor further includes an air-
1	22.	An insulated fuel cell plate comprising:
2	a plate	having first and second surfaces; and

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- a coating precursor applied on at least one of the first and second surfaces of the plate, the coating precursor adapted to polymerize in response to radiation or heat.
- The insulted fuel cell plate of claim 22, wherein the coating precursor is less than about 250 μ thick.
 - 24. The insulated fuel cell plate of claim 22, wherein the coating precursor is less than about 150 μ thick.
 - 25. The insulated fuel cell plate of claim 22, wherein the coating precursor is adapted to polymerize in response to ultraviolet radiation.
 - 26. The insulated fuel cell plate of claim 22, wherein the coating precursor is adapted to polymerize in response to electron beam radiation.
 - 27. The insulated fuel cell plate of claim 22, wherein the coating precursor is adapted to polymerize in response to infrared radiation.
 - 28. The insulated fuel cell plate of claim 22, wherein the coating precursor is substantially polymerized after exposure to radiation for about less than about 45 minutes.
 - 29. The insulated fuel cell plate of claim 22, wherein the coating precursor is substantially polymerized after exposure to radiation for about less than about one minute.
 - 30. The insulated fuel cell plate of claim 22, wherein the coating precursor is substantially polymerized after exposure to radiation for about less than about 30 seconds.
- The insulated fuel cell plate of claim 22, wherein the coating precursor is substantially polymerized after exposure to radiation for about less than about 15 seconds.

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includes an air-release agent.

	The insulated fuel cell plate of claim 22, wherein the coating precursor is
2	substantially polymerized after exposure to radiation for about less than about 5 seconds.
l	33. \ An insulated fuel cell plate comprising:
2	a plate having first and second surfaces; and
3	a coating precursor applied on at least one of the first and second surfaces of the plate
1	wherein the coating precursor is an acrylate resin, an epoxy nitrile resin, or an
5	organopolysiloxane, either alone or in combination.
1	34. The insulated fuel cell plate of claim 33, wherein the coating precursor
2	includes an acrylated urethane oligomer and a photoinitiator.
1	35. The insulated fuel cell plate of claim 34, wherein the coating precursor further
2	includes a mono-functional monomer for reducing viscosity.
1	36. The insulated fuel cell plate of claim 34, wherein the coating precursor further
2	includes a multi-functional monomer for increasing cross-link density.
1	37. The insulated fuel cell plate of claim 34, wherein the coating precursor further
2	includes a adhesion promoter.

The insulated fuel cell plate of claim 34, wherein the coating precursor further

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polydimethyl siloxane.

1	Po 3∳.	An insulated fuel cell plate comprising:
2	a plat	e having first and second surfaces; and
3	a coa	ting precursor applied on at least one of the first and second surfaces of the plate
4	the coating p	recursor comprising:
5	an ac	lated aliphatic urethane oligomer;
6	an ac	rylated epoxy oligomer;
7	a moi	no-functional monomer for reducing viscosity of the coating precursor;
8	a mul	ti-functional monomer for increasing cross-link density;
9	an ad	hesion promoter; and
10	a pho	toinitiator.
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1	40.	The insulated fuel cell plate of claim 39, wherein the mono-functional
2	monomer is i	sobornyl acrylate monomer.
1	41.	The insulated fuel cell plate of claim 39, wherein the adhesion promoter is a
2	methacrylate	d polyol.
1	42.	The insulated fuel cell plate of claim 39, wherein the multi-functional
2	monomer is p	propoxylated glycerol triacrylate monomer.
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1	43.	The insulated fuel cell plate of claim 39, wherein the photoinitiator is a blend
2	of 1-phenyl-2	2-hydroxy-2-methyl-1-propanone and benzophenone.
1	44.	The insulated fuel cell plate of claim 39, wherein the coating precursor further
2	comprises an	air-release agent.
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The insulated fuel cell plate of claim 44, wherein the air-release agent is a

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1 <	An ultraviolet radiation-curable coating precursor comprising:
2	an acrylated aliphatic urethane oligomer;
3	an acrylated epoxy oligomer;
4	a mono-functional monomer for reducing viscosity of the coating precursor;
5	a multi-functional monomer for increasing cross-link density;
6	an adhesion promoter; and
7	a photoinitiator.
1	$6\sqrt{47}$. The ultraviolet radiation-curable coating precursor of claim 46, wherein the
2	mono-functional monomer is isobornyl acrylate monomer.
1	48. The ultraviolet radiation-curable coating precursor of claim 46, wherein the
2	adhesion promoter is a methacrylated polyol.

- adhesion promoter is a methacrylated polyol.
- 49. The ultraviolet radiation-curable coating precursor of claim 46, wherein the multi-functional monomer is propoxylated glycerol triacrylate monomer.
- 50. The ultraviolet radiation-curable coating precursor of claim 46, wherein the photoinitiator is a blend of 1-phenyl-2-hydroxy-2-methyl-1-propanone and benzophenone.
- 51. The ultraviole radiation-curable coating precursor of claim 46, wherein the coating precursor further comprises an air-release agent.
- 1 52. The ultraviolet radiation-curable coating precursor of claim 51, wherein the air-release agent is a polydimethyl siloxane.

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coating precursor further comprises an air-release agent.

air-release agent is a polydimethyl siloxand

1	B	5 3.	An ultraviolet radiation-curable coating precursor comprising:
2		fiom	about 25 wt. % to about 65 wt. % of an acrylated aliphatic urethane oligomer;
3		fram	about 5 wt. % to about 20 wt. % of an acrylated epoxy oligomer;
4		fron	about 20 wt. % to about 40 wt. % of a mono-functional monomer for reducing
5	viscos	sity of th	pe coating precursor;
6		from	about 1 wt. % to about 5 wt. % of a multi-functional monomer for increasing
7	cross-	link deı	nsity;
8		from	about 1 wt. % to about 15 wt. % of an adhesion promoter; and
9		from a	about 0.1 wt. % to about 10 wt. % of a photoinitiator.
1		54.	The ultraviolet radiation-curable coating precursor of claim 53, wherein the
2	mono-	-functio	nal monomer is isobornyl acrylate monomer.
1		55.	The ultraviolet radiation-curable coating precursor of claim 53, wherein the
2	adhesi	ion pror	noter is a methacrylated polyol.
1		56.	The ultraviolet radiation-curable coating precursor of claim 53, wherein the
2	multi-	function	nal monomer is propoxylated glycerol triacrylate monomer.
l		57.	The ultraviolet radiation-curable coating precursor of claim 53, wherein the
2	photoi	nitiator	is a blend of 1-phenyl-2-hydroxy-2-methyl-1-propanone and benzophenone.

The ultraviolet radiation-curable coating precursor of claim 53, wherein the

The ultraviolet radiation-curable coating precursor of claim 58, wherein the